PAiP-2025 conference "Particle Astrophysics in Poland"



Contribution ID: 114

Type: Regular plenary talk

SST-1M stereoscopic system: overview and preliminary results

Saturday, 22 February 2025 10:10 (20 minutes)

The SST-1M telescopes are prototypes of small-size single-mirror Cherenkov telescopes, developed collaboratively by Czech, Polish, and Swiss institutions. Their design is based on the Davies-Cotton concept, featuring a 4-meter mirror and an innovative SiPM-based camera. With a 9.42 m² segmented mirror, a 5.6 m focal length, and a wide 9-degree field of view, the SST-1Ms are optimized for detecting gamma rays in the TeV to multi-TeV energy range.

The two prototypes have been commissioned at the Ondřejov Observatory in the Czech Republic, where their performance is being evaluated in both monoscopic and stereoscopic observation modes. Observations of galactic and extragalactic gamma-ray sources, such as Crab and Markarian 421, have already led to positive detections.

This presentation will provide an overview of the SST-1M project, including its design, development, and current status. Preliminary results from the observation campaigns will also be shown.

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Session Classification: Gamma-ray Astronomy

Track Classification: Gamma-ray Astronomy